

XLII.—*Contributions from the New Mexico Biological Station.*—XI. *New and little-known Insects from New Mexico.*

By T. D. A. COCKERELL.

Coccidæ.

Aspidiotus graminellus, sp. n.

♀.—Scale slightly convex, about 1 millim. diam., white, with pale yellow exuviae, which are covered, and surmounted by a white boss.

♂.—Scale white, elongate, *Diaspis*-like in outline, convex, shiny, not in the least keeled, with the wholly covered pale yellow exuvia at one end.

♀.—Yellow; after boiling in potash colourless, mouth-parts and caudal end remaining brown; anal orifice oval, about $21\ \mu$ long and $36\ \mu$ from bases of median lobes; dorsal glands comparatively few, in four longitudinal rows on each side; no circumgenital glands; three pairs of lobes, the median ones large, rounded, well apart; second and third lobes low and broad, the inner side perpendicular, the outer long and gently sloping, the apex rounded; chitinous thickenings at the bases of the lobes.

Embryo in female about $280\ \mu$ long.

Hab. On leaves of grass, producing purple blotches; Las Vegas, N. M., Jan. 6, 1901; first found by Wilmatte P. Cockerell.

The scale is quite after the manner of *A. Gutierrezie*, but the female insect is different. It differs from *Gutierrezie* in the rounded, wide apart, median lobes, the much larger blunt second and third lobes, and the dorsal glands, which are few and in rows, instead of being numerous and scattered. The anal orifice in *Gutierrezie* is scarcely $12\ \mu$ long.

Orthezia occidentalis, Douglas.

Beulah, N. M., March 1900; common on a very damp hillside. New to New Mexico.

Antonina graminis, Parrott.

Las Vegas, N. M.; on grass, limestone-ledges by the Gallinas River, Jan. 12, 1901 (*W. P. & T. D. A. Ckll.*). New to New Mexico.

Dactylopius neomexicanus (Tinsley).

Described as a variety of *D. Kingii*, but it is probably a valid species.

Las Vegas, N. M., Jan. 6, 1901, on roots of grass; in ovisacs and producing young.

During the summer the species is tended by *Lasius americanus*, but in winter the ants go far underground, and leave it to its own devices. Its habit of reproducing during the winter must be an advantageous one, since it is then free from the attacks of Chalcidid parasites. The Las Vegas females are rather large, 3 millim. long, colour pale brown, varying to pale grey and pale pink. Antennal formula 8 (1 2) 3 7 (4 5 6).

Phenacoccus calcitectus, sp. n.

♀.—About 3 millim. long, at least 4 with the secretion. Wholly covered by a dense chalk-white secretion, which gives it the appearance of an *Orthezia*; this secretion is segmented and forms a broad low ridge down the middle of the body, with two ridges on each side of it; in addition, there is a fringe consisting of thick plates of secretion, very broad anteriorly, becoming narrow and elongated behind.

♀.—Boiled in caustic potash gives a very slight pink colour. Legs and antennæ very dark brown; claw with a denticle on inner side; only bristles in place of digitules; tarsal bristles very short, about 20 μ long, about a dozen in a row; bristles of anal ring six, about 230 μ long; body densely beset with small round glands and small brown spines, which make it look almost like a hedgehog; each segment has a large brown patch on each side. Antennal formula 9 3 2 5 4 1 (6 8) 7, with some variation. Measurements in μ :—Antennal joints: (1) 84–120, (2) 120–130, (3) 135–160, (4) 99–150, (5) 99–140, (6) 72–78, (7) 66–72, (8) 78–81, (9) 144–170. Middle legs: coxa 300; femur + trochanter 600; tibia 600; tarsus 240; claw 80.

♂.—Length about 3 millim., filaments 9 millim. Grey, somewhat covered with white secretion; antennæ and legs dark slate-colour; wings dusky, somewhat iridescent, with dark veins; two long white caudal filaments.

Hab. Beulah, N. M., about 8000 feet alt., July 27, 1900 (*T. D. A. & W. P. Cockerell*). The females were found on the heads of grasses (*Koeleria* and *Phleum*), which they had climbed presumably to attract the males, which were flying around.

P. calcitectus belongs to the group of *P. yuccæ*, but differs

greatly from *yuccæ* in its dense chalk-like secretion, wherein it closely resembles *P. bahiæ*, Ehrhorn. It differs from *bahiæ* in its much longer and more slender antennæ and the much shorter tarsal bristles. The antennæ closely resemble those of *yuccæ*, but differ in the uniformly longer second joint and the shorter sixth, seventh, and eighth. Prof. J. D. Tinsley has kindly lent me his series of measurements of *P. yuccæ* for comparison. He has examined that species from California and Mexico, as well as the var. *Barberi* from the West Indies.

Tenthredinidæ.

Euura Cooperæ, sp. n.

♀.—Length 5 millim. Clypeus with a broad rounded emargination; ridges of ocellar area distinct; frontal crest low but distinct, the lateral portions somewhat more prominent than the middle; antennæ about as long as head and thorax, third and fourth joints equal, fifth a little shorter; outer veins of discal cells in hind wings not interstitial; stigma large, not greatly tapering to the point; sheath of ovipositor rounded at apex. Black and reddish testaceous or honey-colour; antennæ black at base, the apical three or four joints brown; front, middle of vertex, and occiput black or nearly so; face below antennæ, orbits very narrowly in front, very broadly behind, honey-colour; thorax black, lateral lobes of prothorax and sometimes the anterior half of the pleura honey-colour; wings dull hyaline, hairy, nervures and posterior half of stigma dark brown, basal half of stigma whitish; abdomen honey-colour, with the basal half dorsally black, the black extending further backwards in the middle than at the sides; sheath black; cerci black at ends; legs honey-colour, the hind tarsi infuscated.

Described from four specimens.

Gall an oval abrupt lateral swelling on the twigs of *Salix* sp. (a species with very narrow leaves), about 10 millim. long and 7 broad, pale and roughened.

Hab. Vicinity of Las Vegas, N. M., flies emerging April 5 and 9 (*Mary Cooper*).

The gall is similar to that of *Euura salicis-ovum*, Walsh, and it had been assumed that it was the product of that insect. Now that Miss Cooper has bred the flies, however, they are manifestly different. *E. mexicana*, Cameron, from Northern Sonora, is similar in colour to *E. salicis-ovum*, and also evidently different from *E. Cooperæ*.

Euura salicis-nodus, Walsh.

Hab. Vicinity of Las Vegas, N. M., fly emerging April 4 (*Mary Cooper*).

I have only a single fly, and that is headless; but I think the identity is reasonably certain, as the galls agree, and the willow is, I believe, the same species as that from which Walsh obtained his species. The colour of the galls is red. From these galls were also bred two females of a *Prosopis* which is probably a variety of *P. mesille*, but may prove distinct when the male is obtained. It lacks the clypeal mark of *mesille*, and yet has the form of that insect rather than of *P. pygmaea*.

Apidæ.

Osmia fulgida, Cresson.

Hab. Beulah, July 16, 1900 (*T. D. A. & W. P. Ckll.*).
New to New Mexico.

Osmia armaticeps, Cresson, var. *sapellonis*, var. n.

♀.—Length 12 millim.

Agrees with the description of *armaticeps*, except that the cheeks, instead of being "sparsely and finely punctured," are very strongly and quite closely punctured; and the mesothorax, instead of being "sparsely punctured and polished," is very strongly and densely punctured, the punctures being as close as it is possible for them to be. Probably a distinct species.

Hab. Hill above Beulah, Aug. 19 (*Ckll.*).

It has a superficial resemblance to *Monumetha argentifrons*.

Colioxys Sayi, Robertson.

Hab. Las Vegas, at flowers of white hollyhock, July 10, 1900, 1 ♀ (*Ckll.*).

New to the local fauna.

Monumetha argentifrons, Cresson.

This species is usually called *M. borealis*, but the name *argentifrons* has priority of place. The female varies considerably in size.

Hab. West Fork, Gila River, July 12, ♀ (*Townsend*); Beulah, Aug. 16, &c. (*W. Porter*). I have also both sexes from Olympia, Washington State, collected by Mr. Trevor Kincaid; one of the males was collected July 3, on flowers of *Epilobium spicatum*.

Stelis permaculata (Ckll.).

Stelis lateralis, var. *permaculata*, Ckll., Entomologist, July 1898, p. 167.

Hab. Santa Fé, N. M.

I have now before me the genuine *S. lateralis*, collected by Mr. J. C. Bridwell at Baldwin, Kansas, in June. It is evident that *permaculata* is a perfectly distinct species, easily distinguished by the characters given at the place cited.

Melissodes obliqua (Say).

Hab. Las Vegas, July 10, at flowers of *Cleome serrulata*, 1 ♂ (*N. Stern*); July 20, at *Helianthus*, 1 ♂ (*W. Porter*); July 20–24, at flowers of *Lepachys columnaris*, 5 ♀ (*Ckll.*, *W. Porter*); Santa Fé, August, at *Lepachys*, 2 ♀ (*Ckll.*); Mesilla, July 25, at *Grindelia squarrosa*, 1 ♀ (*Ckll.*).

East Las Vegas, New Mexico, U.S.A.,
February 7, 1901.

XLIII.—*Diagnoses of some new Species of Spiders from Mashonaland.* By R. I. POCKOCK.

Ischnothele mashonica, sp. n.

♀.—*Colour.* Carapace and sternum deep brown; abdomen black above, covered scantily with greyish-white hairs and ornamented with symmetrically arranged white spots; legs banded.

Carapace a little longer than wide, as long as patella and tibia of fourth leg and as patella, tibia, and half protarsus of first.

♂.—*Tarsus* of palp a little longer than the tibia; bulb oval, the spine very long and slender throughout and lightly curved.

Total length (♀) 13 millim.; carapace 6; first leg 12·5, fourth 17.

Loc. Mazoe (*J. ff. Darling*).

Agelena rhodesiae, sp. n.

Colour of integument of legs and carapace varying from testaceous to deep mahogany-brown, approaching black upon the sternum and femora; upperside of abdomen with a paler reddish median stripe, frequently ornamented in front of the